



Features

The Scout Console API lets third-party CAD applications connect to and exchange status or commands with a Scout console.

The Scout console API provides two interface points to provide unique integration for interacting with various third-party endpoints:

Scout Console Business Layer (Scout Console API)

VPGate Data Forwarding Driver

The Scout Console API Software Development Kit (SDK) provides the interface for third-party applications to integrate with specific console positions.

This development kit includes tools such as documentation and source code samples that Avtec partners and customers need to write, build, test, and deploy computer-aided dispatch (CAD) applications that can communicate with the Scout product suite.

The Scout Console API SDK consists of the following:

COMPONENT	DESCRIPTION
Scout Console CAD Interface Application Programmer's Guide	This document describes the programming methods used to connect a computer-aided dispatch (CAD) application and the Scout console dispatching system.
Scout Console CAD Interface API Reference Guide	This document describes the component architecture, interface protocols, and control messages that allow the CAD system to perform a subset of the Scout console functionality. The functionality described in this document includes connecting to the Scout Business Service, changing endpoint states, paging, and unit-to-unit radio commands.
VPGate Third-Party Data Forwarding Reference Guide	This document describes the functionality of the data forwarding driver and the communications protocol used to transfer these messages back and forth between an application and VPGate.
CAD Client (Simon)	Simon is a CAD client application for testing an interface with the Scout console. Use Simon to test interaction of a CAD client interface and Scout without running the actual CAD application.
Source Code Examples	There are two test applications that demonstrate the API functionality and provide a coding example for each of the interfaces. The application examples are C#, .NET 3.0 applications compatible with Visual Studio 2010.
Wireshark Dissector Plugins	These Avtec-supplied files provide support for capturing Avtec protocol traffic. For more information about Wireshark, go to the website at www.wireshark.org .
Technical Support	The Scout Console API SDK includes two hours of developer-to-developer support that provides direct contact with an Avtec software engineer. Eight additional hours of support can be purchased separately.

GENERAL REQUIREMENTS

If necessary, all software components required for the Scout Console API SDK can be installed on a single computer running Microsoft Windows 10 64-bit. For small systems, running with VPGate on the Scout console PCs, all of the requirements listed apply. For larger systems running the VPGate applications on dedicated machines, apart from the Scout console software, refer to the Scout and VPGate columns in the following table to verify which requirements apply for each PC.

REQUIREMENTS	SCOUT COMPUTER	VPGATE COMPUTER	SCD COMPUTER
Minimum 1024 x 768 Video Display (Recommend 1280 x 1024 or higher based on the type of monitor) ¹	Yes		
One Serial port ²	Yes		
Two 1-GB NIC connections (if implementing the Redundant NIC solution)	Yes		
USB ports ³	One per hardware dongle and Software Audio Package peripheral	One per hardware dongle	One per hardware dongle

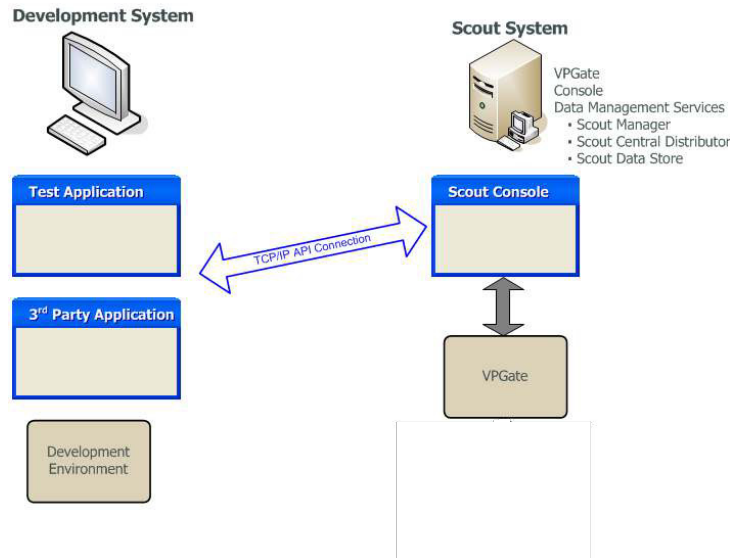
1 - To ensure that all screens and messages display as intended on the Scout console, the PC's Control Panel DPI Display must be set to **Smaller - 100% (default)**.

2 - Not required for computers using the Software Audio Package.

3 - All external USB ports used for connecting Avtec USB peripherals must support proper enumeration of removable USB devices. The enumeration enables Avtec USB peripherals to use device-generated Microsoft OS Container IDs. Check with the host computer's manufacturer to verify that the external facing USB ports on the computer support removable USB device enumeration.

DEVELOPMENT ENVIRONMENT

The Scout Console API development environment requires a console position that has access to endpoints. This could be an all-in-one system that contains Scout console and VPGate. Console functions initiated by the CAD application are transmitted to Scout and vice versa through the Scout CAD API so that each system mirrors the current condition for an endpoint.



SDK REQUIREMENTS

If necessary, all software components required for the Scout Console API SDK can be installed on a single computer running Microsoft Windows 10 Pro 64-bit.

The third-party CAD application can run on another platform such as Linux or Mac OS X.

The basic development system requirements are:

- Intel dual core processor
- 4 GB RAM (8 GB RAM if All-in-One system)
- 75 MB free disk drive space
- Microsoft Windows 10 64-bit operating system
- Microsoft .NET Framework 4.0
- 10 Mbps (10BaseT) or faster Ethernet connection
- DVD drive
- USB port

NOTE

The SDK test application runs only on a Windows platform. Avtec recommends Windows 10 to ensure compatibility with future Scout releases.

Scout Console API

The Scout Console API provides the interface for third-party applications to integrate with specific console positions. This interface provides access to various endpoints that are accessible from the console. The interface also allows the use of both a third-party application and the Avtec Scout Runtime to control endpoints concurrently. The Runtime can also serve as a backup to the third-party application.

VPGate Data Forwarding Driver

The VPGate Data Forwarding Driver provides a central interface to an endpoint for data exchange with certain radio infrastructures. In this case, the endpoint is acting as a pass-through to the radio infrastructure and provides functionality that affects more resources than just the endpoint where the data is being sent.

SCOUT API DEVELOPER PACKAGE

An optional Scout console hardware package (model number PKG-DEV-SCOUT) is available to assist in developing the interface between a CAD application and a Scout system. The following Avtec-supplied hardware and software is included in the package to create an actual Scout console system if one is not otherwise available.

QUANTITY	COMPONENT
1	17-in LCD Touchscreen Monitor
1	Scout Console Computer, 4 GB RAM, Windows 10 Professional
1	Scout Console Media Workstation
2	Scout Console Desktop Speaker
1	Scout Console Headset/Handset Jack Box
1	Outpost Radio Controller
1	Scout Console Quick Connect Guide
1	5-port Gigabit Ethernet Switch
1	Push-to-talk Handset with Microphone
1	6-ft serial cable
5	3-ft Cat 5e Ethernet patch cable
1	6-ft power cord
1	VPGate Level 0 license key (up to 20 endpoints)
1	P25 Supplemental VPGate endpoint license key
1	VPGate Advanced Radio Support software

Contact your Avtec sales representative for information about additional components that are available separately.

MODEL NUMBERS

MODEL NUMBER	DESCRIPTION
SDK-CAD-API	Basic Scout-CAD API software developer's kit. Includes two hours of developer-to-developer support that provides direct contact with an Avtec software engineer.
PKG-DEV-SCOUT	Optional Scout console hardware package. This includes Scout console software and license, VPGate software and license, eight additional hours of technical support, VPGate Advanced Radio Support, and a P25 supplemental license.
SVC-CSLT-API	Additional eight hours of technical support.
SFW-SCOUT-API	Scout console CAD interface license.

SOFTWARE LICENSES

The Scout Console API SDK is licensed separately from the Scout product suite. After a CAD interface is developed and is ready for deployment, a separate license (model number: SFW-SCOUT-API) is required for each Scout console position connected to the CAD system. Contact your Avtec sales representative for more information about purchasing Scout Console API licenses.

A non-redundant VPGate license (SFW-VPG-L0-NR) is included with the developer hardware package. This license allows up to 20 endpoints, 10 of which can be Category B endpoints. You might need additional supplemental licenses for any Scout components you install such as some VPGate drivers; not all VPGate drivers are licensed separately. Refer to the Scout console VPGate Software cut sheet, or contact your Avtec sales representative, for more information about VPGate licenses.